

REMARKS

The disclosure in the specification was objected to as not being clear because of the phrase "<90% value particle diameter (90% by weight of the particles are of a particle diameter below the range) of about 0.30 to about 3 microns". The <90% value is a common terminology for particles. U.S. Patent 6,306,945 uses this term in their specification and claims. Applicants do not believe the term is unclear in that it clarifies that not only does the zeolite have a certain mean particle diameter, but also there are not a lot of particles that are large. The part of the phrase in () is a further clarification of the <90% value particle diameter. The Examiner is requested to reconsider and remove this objection.

Claims 1-6 are pending in this application. Claims 1-5 were rejected UNDER 35 U.S.C. §112, second paragraph, because the Examiner believes the phrase "90% by weight of said zeolite particles are of a particle diameter below the range of from about 0.30 to about 3 microns" is indefinite. Applicants' do not believe the phrase is indefinite but some amendment to the claim has been made to further clarify that the value refers to the zeolite particles. The phrase is to point out that not only must the zeolite have a small mean particle size but also that there cannot be a substantial amount of zeolite (by weight) which is large particle size. Without this phrase, the claims could include a zeolite which has the claimed mean particle size but have a large amount by weight of large particles, which would be undesirable for impact strength. Since large particles weigh a lot more than small particles, it would be possible to have a mean particle size which is small but still have a large number of large particles. The phrase makes it clear that not only is the mean particle size small but also there is an absence of a large amount of larger particle. The amended claims are believed to comply with 35 U.S.C. §112 and the Examiner is requested to remove the rejection.

Claims 1-5 were rejected under 35 U.S.C. §112, first paragraph, as being enabling as to the particle size of the zeolite (less than 1.5 microns). The claims have been amended to recite a mean particle size of from about 0.25 to about 1.5 microns. This Amendment should allow this rejection to be removed.

Claims 1 and 5 were rejected under 35 U.S.C. §102(b) as being anticipated by Detterman (U.S. 5,912,277) as evidenced by Gray (U.S. 4,123,376) and Murayama (U.S. 6,486,333). This rejection is respectfully traversed and reconsideration is requested.

The reference Detterman does not teach the particle size of the zeolite and that the zeolite has a small amount of large particles. The zeolite particle size used by Applicants is very small and has small amounts of large particles. This is necessary to give the good impact resistance, heat stability and smooth extrusion in the present invention. This is not mentioned in Detterman.

Gray in Example 11 does teach using a 4A zeolite having about 20% water but Gray does not teach the particle size of the zeolite. Murayama teaches that the 4A zeolite used in his Table 4 has an average particle size of 3 microns. This is larger particle size zeolite than that used by Applicants. Detterman as evidenced by Gray and Murayama does not teach nor suggest the zeolite particle size used by Applicants. The Examiner is requested to reconsider and remove the 35 U.S.C. §102 rejection.

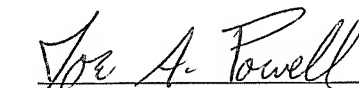
Claims 2-4 were rejected under 35 U.S.C. §102(b) as being anticipated by Detterman as evidenced by Eshuis (U.S. 5,635,588, Gray (U.S. 4,123,376) and Murayama (U.S. 6,486,333). None of the references show a zeolite with the particle size as claimed by Applicants. Detterman is silent on particle size. Murayama teaches a zeolite having a particle size of 3 microns. Gray does not teach a particle size but rather water content of zeolite 4A. Eshuis teaches a zeolite having a particle size of 1-2 microns with a pore diameter of greater than 0.6 nanometer.

The references cited do not suggest to one skilled in the art of CPVC compounding that by using the combination of the zeolite with the particle size recited, together with the impact modifier and metal stabilizer would give a smooth extrusion product having heat stability and impact resistance.

Docket No. 201TR032
Serial No. 10/722,623
July 31, 2006
Page 8

The claims are believe to be novel and unobvious, and the Examiner is respectfully requested to reconsider and allow the claims.

Respectfully submitted,



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